Migraine consists of a constellation of symptoms, one of which is headache.

First Contact

HEADACHE
In Primary Care

AMERICAN HEADACHE SOCIETY®

BY THE AMERICAN HEADACHE SOCIETY®

Disclosures

Purpose/Objective
1. Distinguish migraine from other headache types
2. Discuss the steps to diagnosing migraine vs other primary headache vs secondary headache
3. List FDA-approved and evidence-based acute and preventive migraine therapies
4. Discuss proper use and management of migraine therapies
5. Identify and debunk common myths about headache

Accreditation Statement
The American Headache Society is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement
The American Headache Society designates the live activity for a maximum of *1.0 AMA PRA Category 1 Credit™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Instructions for Claiming CME
- Attend the sessions in full for which credit is sought
- Complete the post-activity evaluation
- A certificate of completion will be available once the evaluation is submitted

Financial Disclosures
The planners and faculty for this activity did not have any relationships to disclose unless listed here/below. All relevant relationships were mitigated prior to the start of the activity according to ACCME Standards.

Christopher H. Gottschalk, MD, FAHS
Scientific Advisory Board Member - Lundbeck/Alder Biopharmaceuticals, Amgen/Novartis, Biohaven, Axsome, Satsuma, Theranica (July 2019)
Speaker's Bureau - Amgen/Novartis, Lilly, Biohaven, Allergan (Ubrelvy), Theranica

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Bibliography
References are included in each presentation/video.

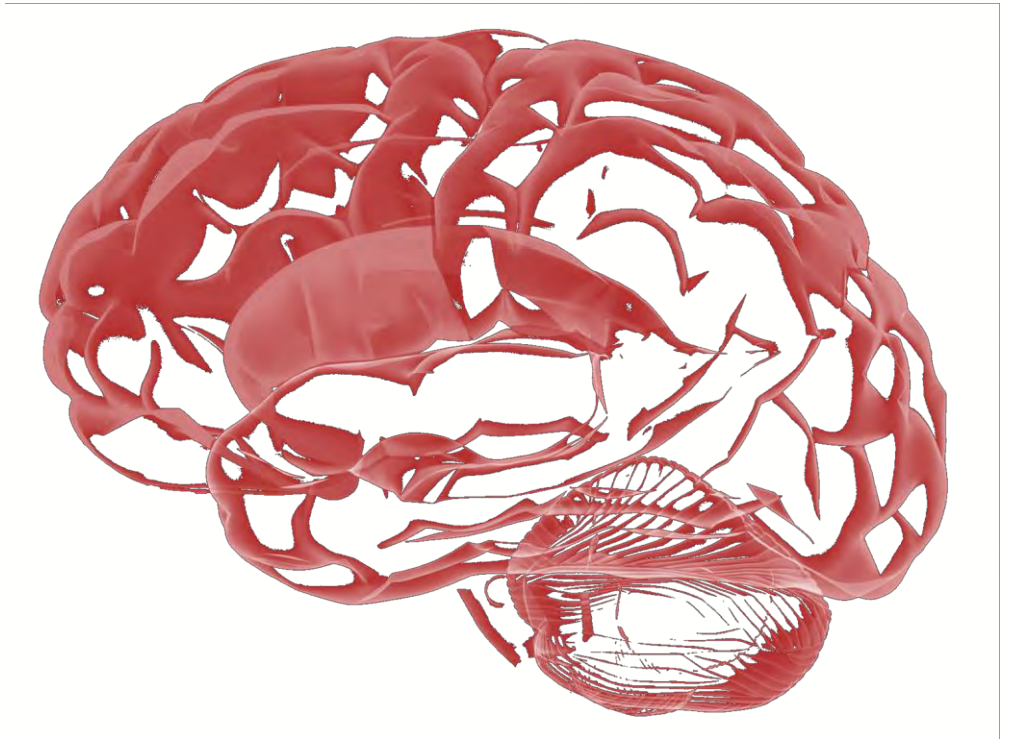
Learning Objectives

- Define migraine
- Discuss how to distinguish migraine from other headache disorders
- Explain acute treatment, migraine prevention, and other management strategies
- Identify common misconceptions about migraine

What is Migraine?

Migraine Definition

An **inherited disorder** characterized by **neurologic, sensory, autonomic, vestibular, cognitive,** and **gastrointestinal** symptoms



Migraine Prevalence

1 billion worldwide

1 in 5 women

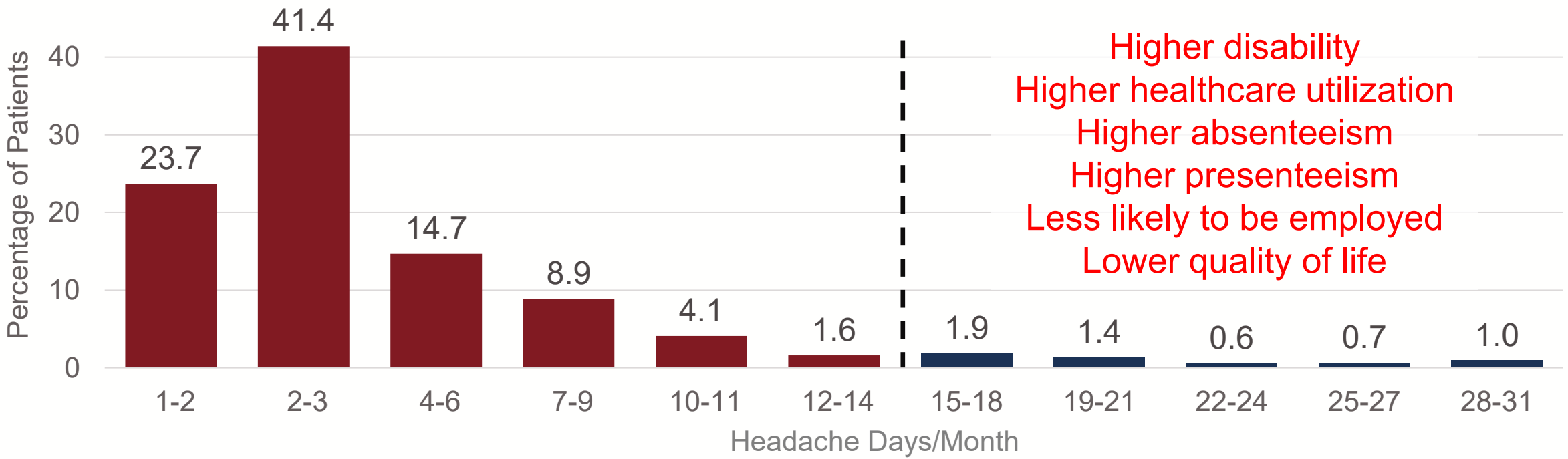
1 in 16 men

1 in 11 children

1 in 4 homes

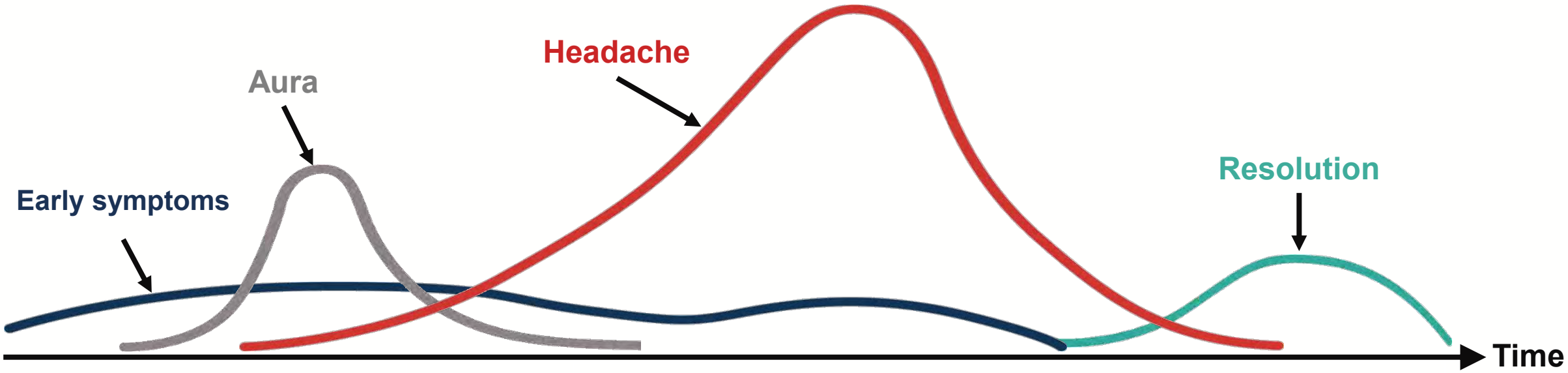
Lancet Neurol. 2018;17:954-976. Neurology. 2007;68:343-9; Curr Pain Headache Rep. 2013;17:341

Migraine Attack Frequency



Cephalalgia. 2011;31:301-15; Headache. 2016 Feb;56(2):306-22.

Phases of a Migraine Attack



Premonitory symptoms

Mood change
Fatigue
Cognitive changes
Food craving
Yawning
Neck Stiffness

Headache

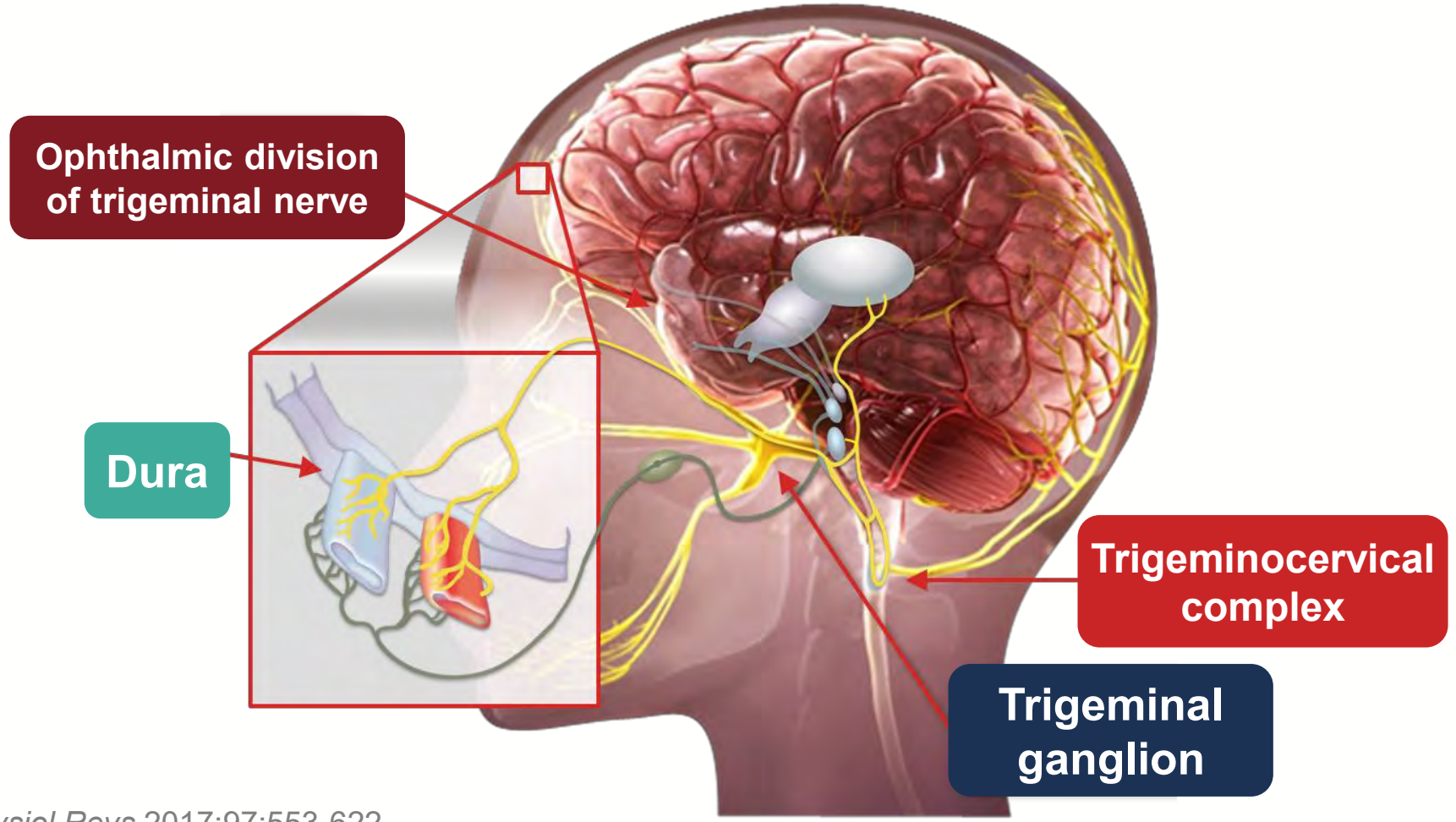
Throbbing pain
Nausea
Photophobia
Phonophobia
Osmophobia

Postdrome

Fatigue
Cognitive changes
Neck stiffness

Adapted from *Drugs*. 2018;78:411-37.

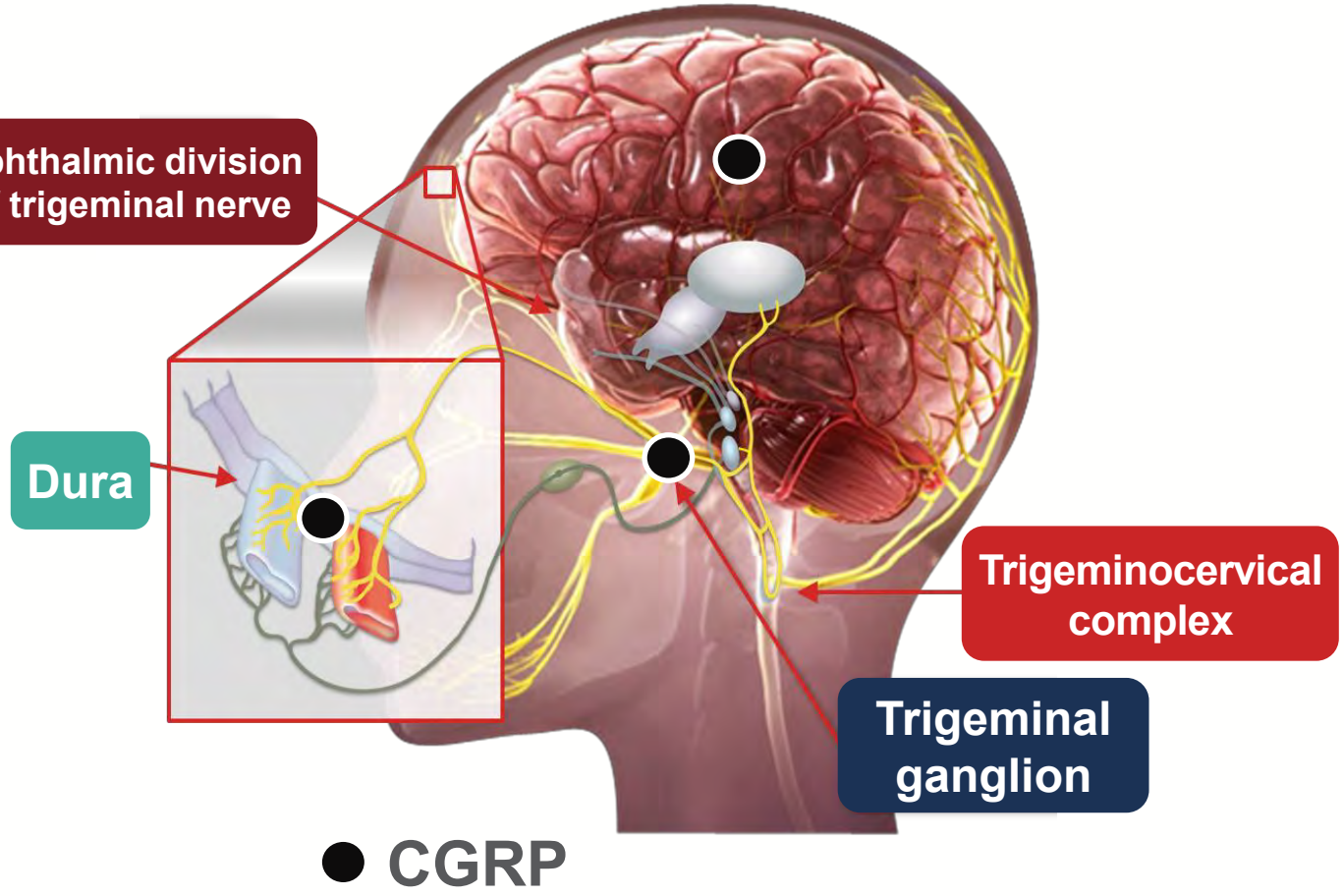
Pathophysiology of Migraine



Goadsby et al. *Physiol Revs* 2017;97:553-622

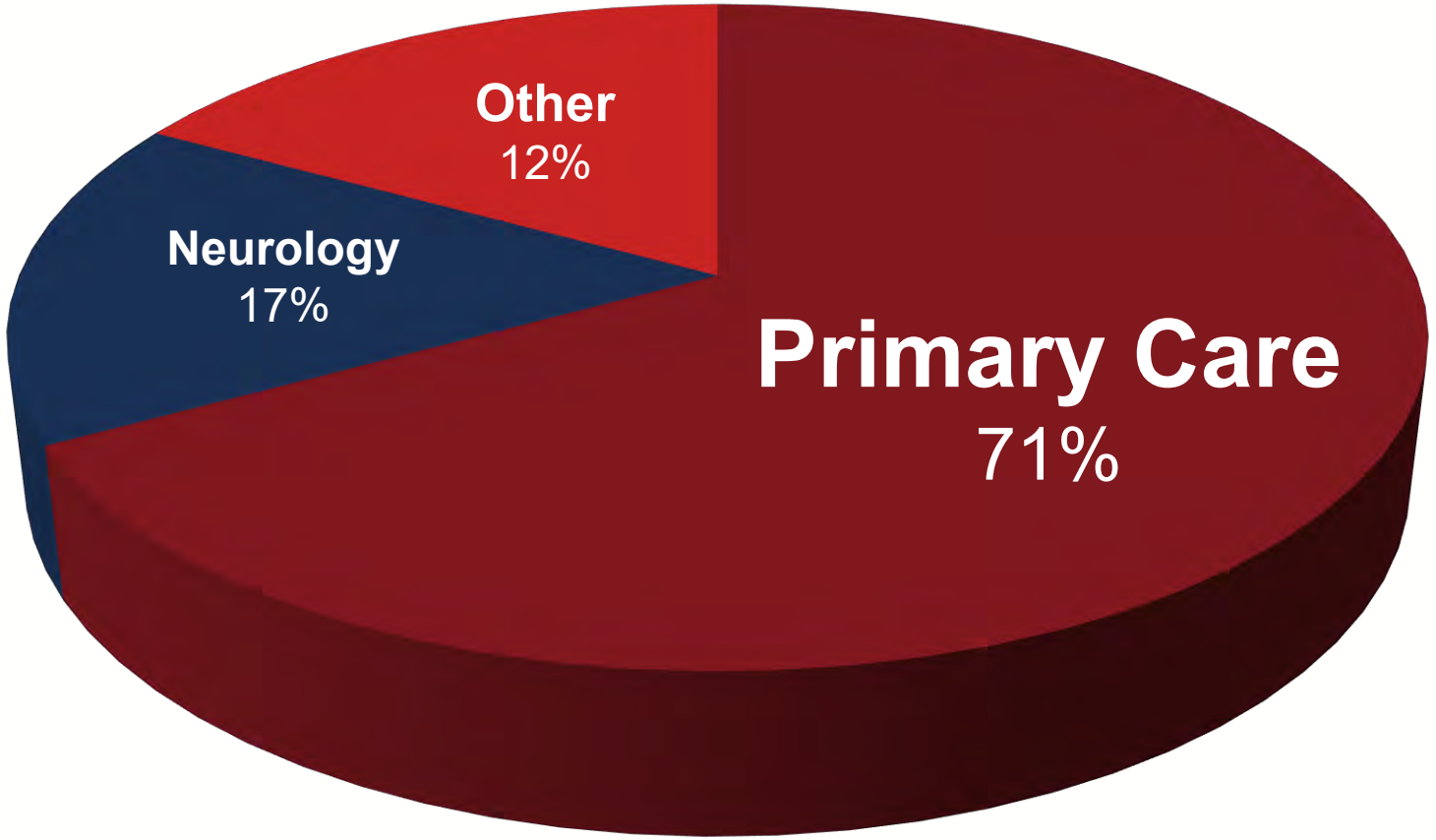
New Drug Target in Migraine: CGRP

- **Peptide widely expressed in the:**
  - Central nervous system
  - Trigeminovascular system
  - Dura
- **Released during migraine attacks**
- **Actions:**
  - Vasodilation
  - Inflammation
  - Pain transmission



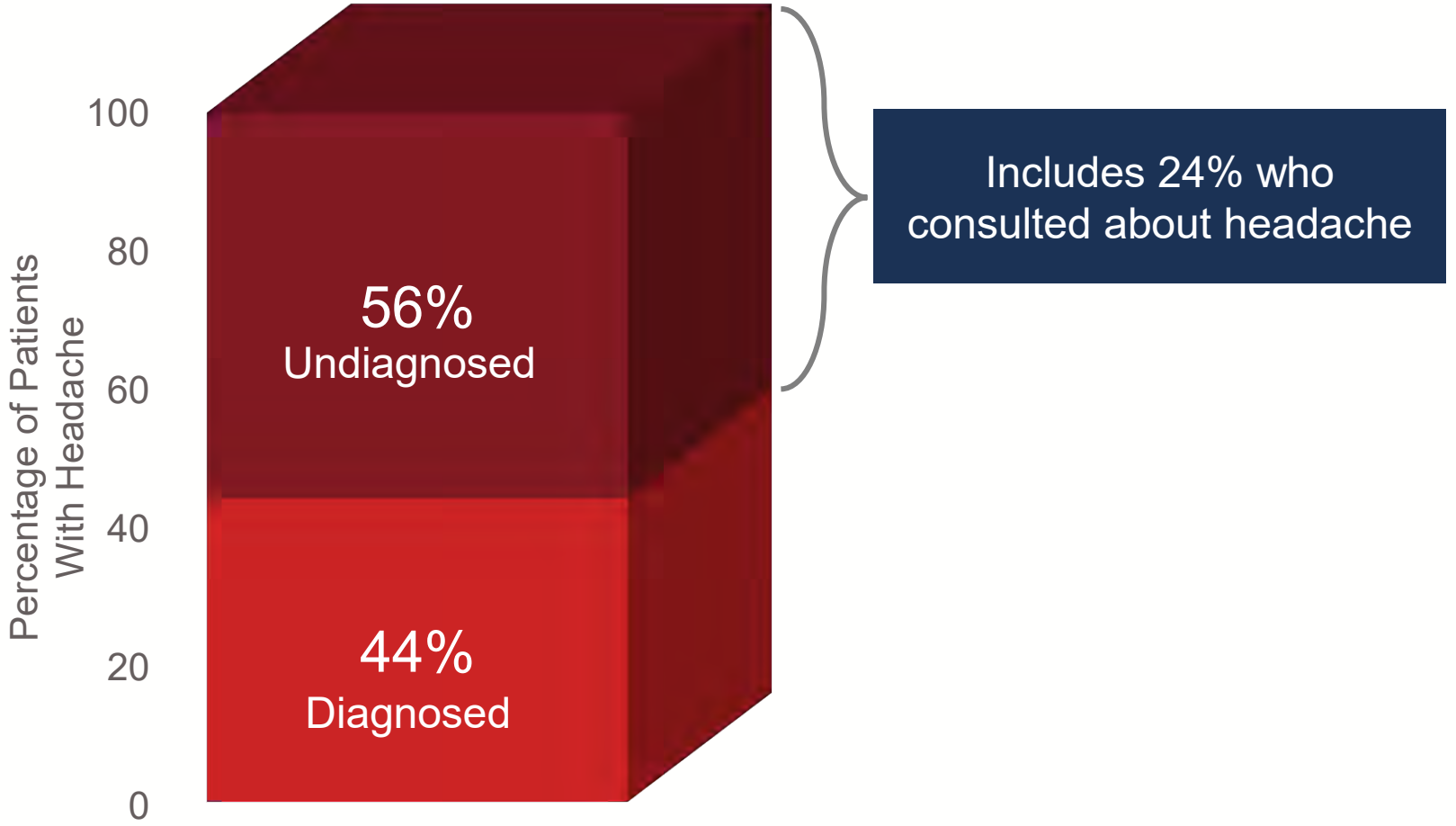
Goadsby et al. *Physiol Revs* 2017;97:553-622;
Edvinsson L et al. *Neurotherapeutics*. 2010;7:164–175.

Who Do Patients Consult for Migraine?



Lipton RB et al. *Headache.* 1998;38:87-96; Gibbs TS et al. *Headache.* 2003;43:330-5; Collins JG.

Headache Remains Underdiagnosed



Lipton RB et al. *Headache.* 1998;38:87-96.

How Do I Diagnose Migraine?

Rule Out Secondary Headache:
When to be Concerned

History and **Examination**

Assess for worrisome signs and symptoms

"SNOOP" Mnemonic

Systemic symptoms (fever, weight loss, myalgias)

Secondary risk factors (HIV, cancer, pregnancy)

Neurologic exam (papilledema, focal deficit, confusion, seizures)

Onset (sudden/thunderclap)

Older (new or progressive headache, especially over 50 years)

Pattern change (new symptoms in previously stable pattern)

Precipitants (Valsalva, position change, sexual activity)

Adapted from Dodick DW. *Adv Stud Med*. 2003;3:550–555.

Migraine or Tension-type Headache?

	Migraine	Tension-type Headache
Duration	4-72 hours (2-72 in children)	30 minutes – 7 days
Location	Unilateral (40% bilateral)	Bilateral
Description of pain	Pulsating (50% non-pulsating)	Pressing/Tightening (non-pulsating)
Pain intensity	Moderate-severe	Mild-moderate
Effect of routine physical activity	Aggravated by	None
Nausea or vomiting	Yes	No
Photophobia or phonophobia	Both	No more than 1
Attributable	Not attributable to another disorder	Not attributable to another disorder

NOTE: Tension-type headache rarely presents as a chief complaint.
If a patient is in your office for complaint of recurring headache, it is likely migraine.

Cephalalgia. 2018;38:1-211.

3-Question Screener: ID Migraine

"PIN" the migraine diagnosis

Photophobia

Does light bother you when you have a headache?

Impairment

Has headache limited activity (≥1 day) in the last 3 months?

Nausea

Are you sick to your stomach when you have a headache?

"Yes" to **2 or 3** questions = **93%** have migraine

Neurology. 2003;61:375-82.

How Do I Manage Migraine?

- Acute Treatment
- Preventive Treatment
- Non-medication Treatments
- Manage What Makes Migraine Worse

Acute Treatment

How Do I Manage Migraine?

Medications for Acute Treatment

Migraine-specific
- Triptans
- Gepants
- Ditans

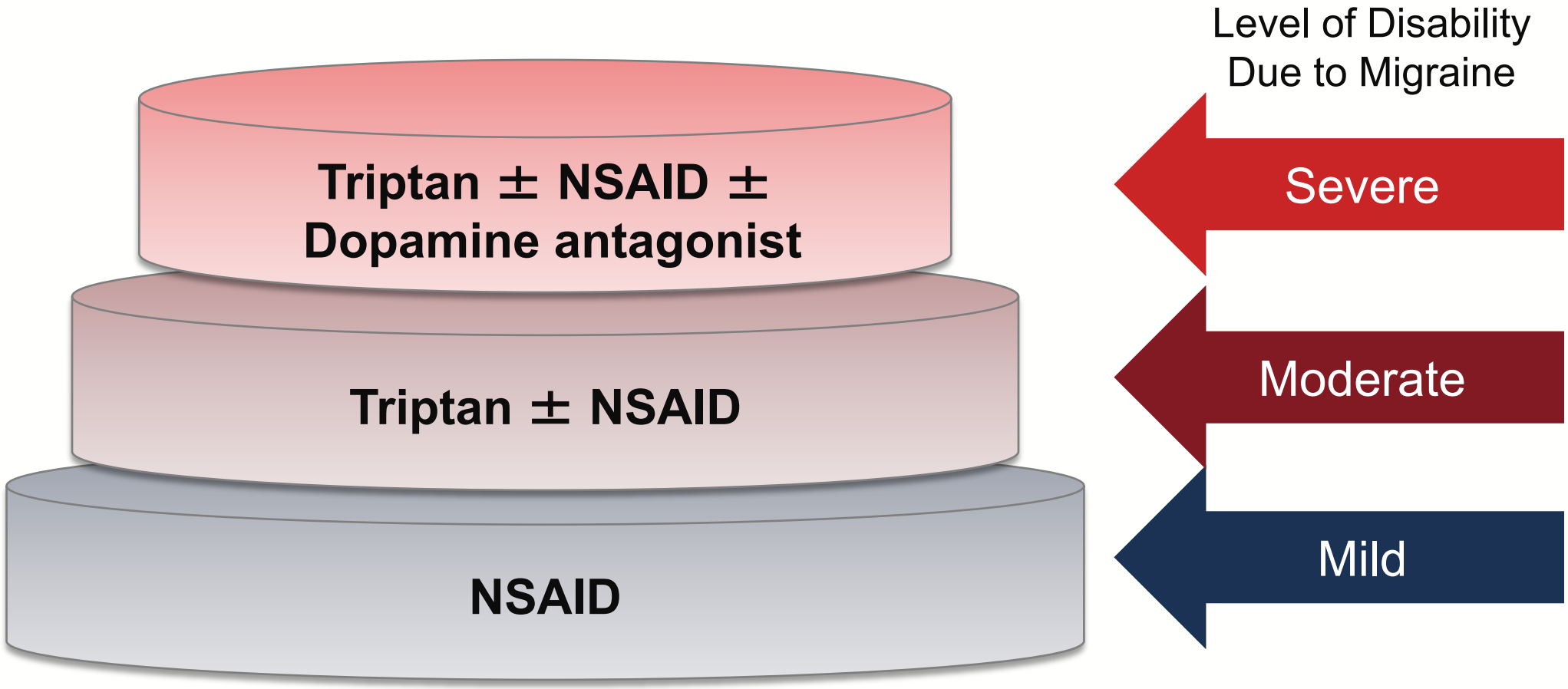
NSAIDs
- Ibuprofen
- Naproxen
- Diclofenac

Also consider

Dopamine antagonists
- Metoclopramide
- Prochlorperazine
- Promethazine

Headache. 2015;55:778-93.

Stratified Care



JAMA. 2000;284(20):2599-605.

Triptan Selection

Triptan	Formulation(s)	Comments
Sumatriptan	Oral tablet, nasal spray, nasal powder, SC	Only triptan with subcutaneous option
Rizatriptan	Oral tablet*	Shortest T_{max} (1.3 h); use half dose in patients taking propranolol
Eletriptan	Oral tablet	Potent, safest in lactation, preferred in renal impairment
Naratriptan	Oral tablet	Half-life 6.5 h
Zolmitriptan	Oral tablet,* nasal spray	One of two triptans available as nasal spray
Almotriptan	Oral tablet	Favorable safety and tolerability
Frovatriptan	Oral tablet	Long half-life (26 h); preferred in menstrual migraine

*Conventional and orally dissolving tablets available

Pearls: Acute Treatment of Migraine

Triptan not effective	Try a different triptan, add an NSAID and/or dopamine antagonist
Triptan side effects	Switch to naratriptan, eletriptan, or almotriptan or decrease dose
Headache recurs after treatment	Add an NSAID or dopamine antagonist, switch to triptan with long half-life (eg, naratriptan, frovatriptan)
Nausea/vomiting	Non-oral route of administration (eg nasal, subcutaneous)
Excessive use	Start prevention, discuss medication overuse
Failed triptan therapy	Consider gepant (ubrogepant*, rimegepant*) or ditan (lasmiditan*)

*FDA approved

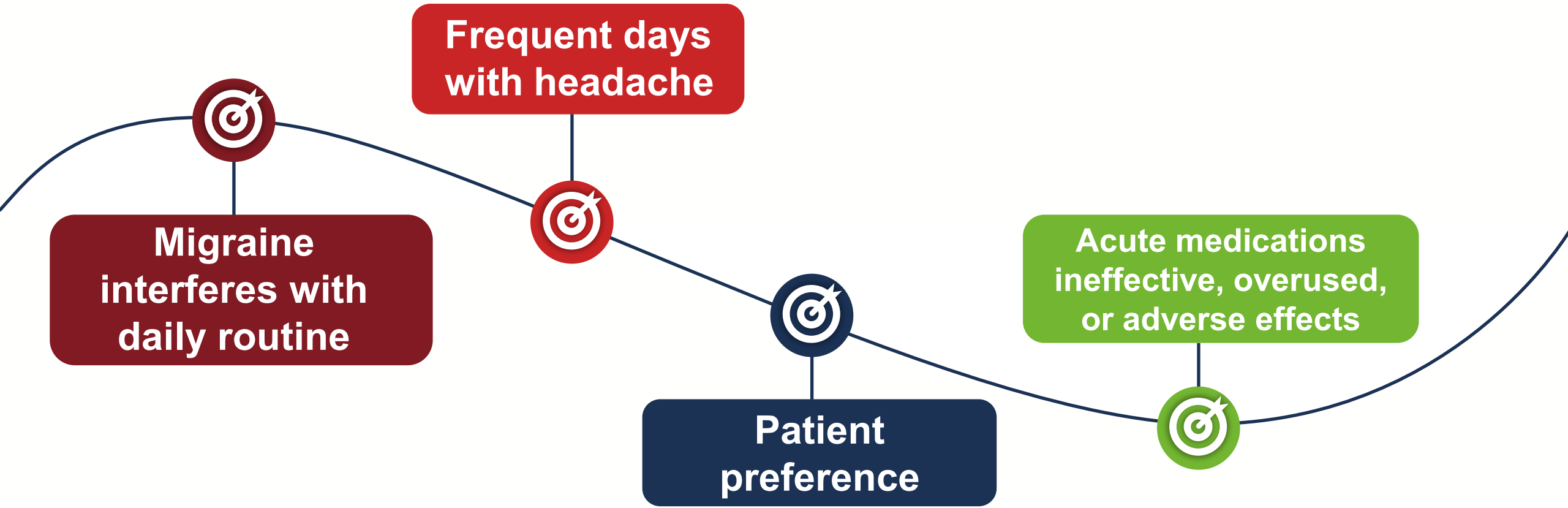
Acute Treatment

How Do I Manage Migraine?

How Do I Manage Migraine?

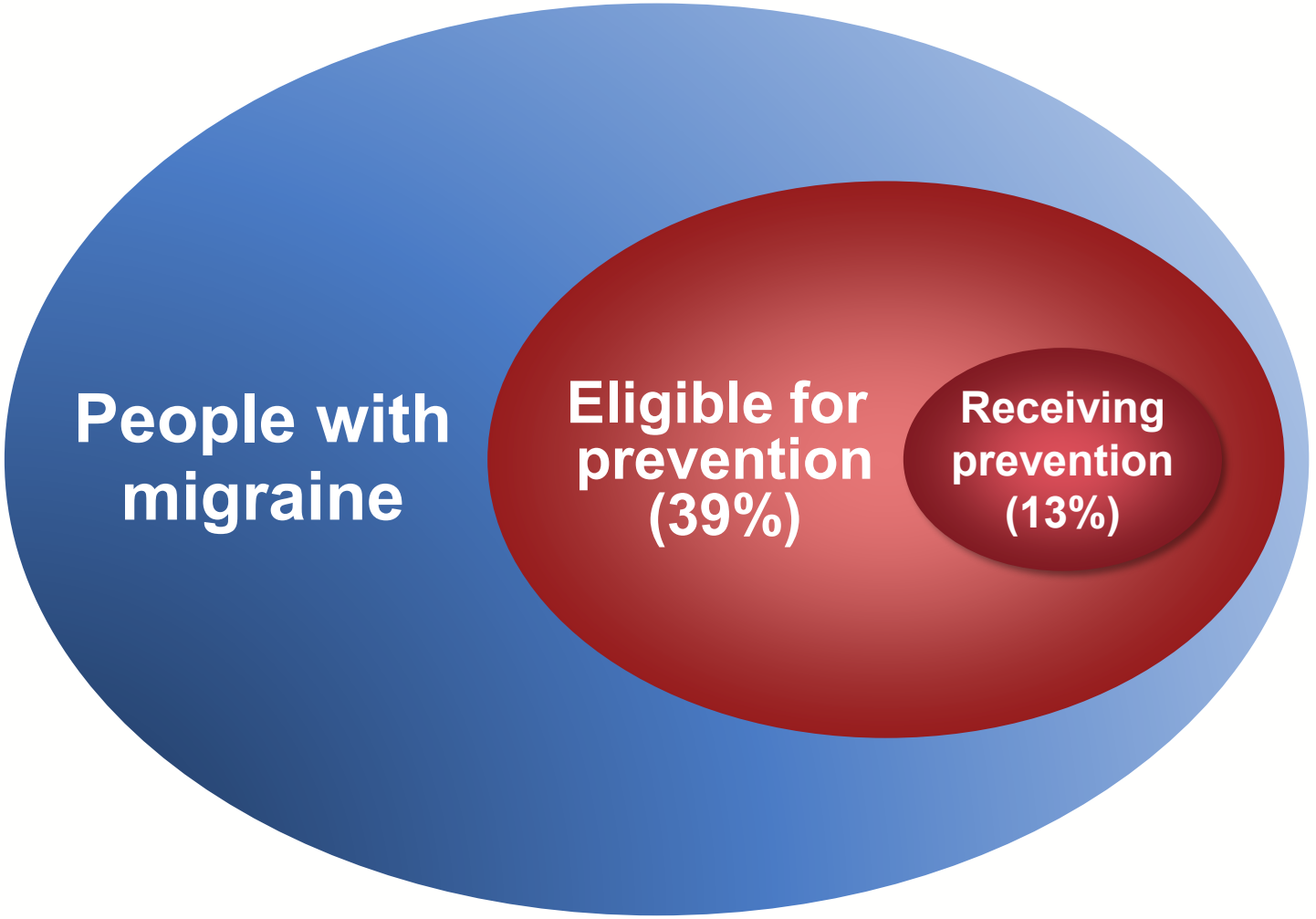
Preventive Treatment

When to Prescribe Preventive Therapy



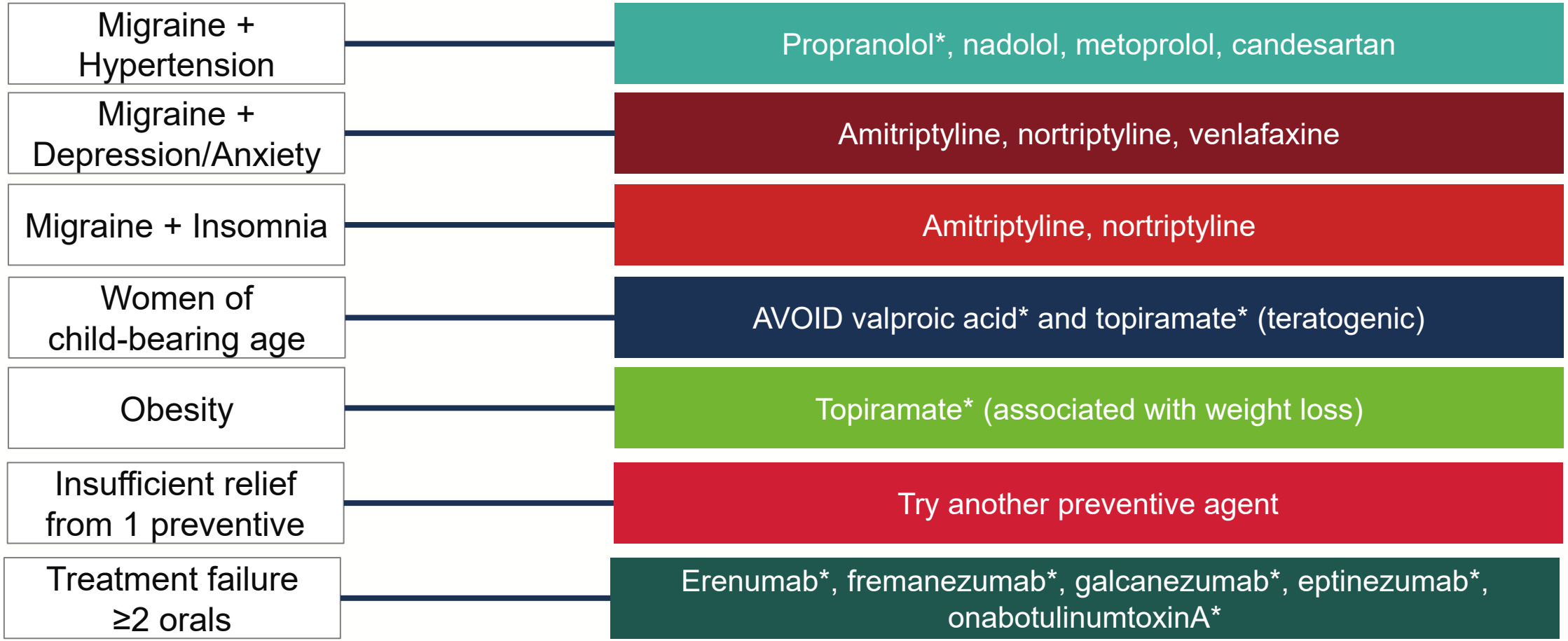
Neurology. 2000;55:754-62.

Who Is Eligible for Preventive Treatment?



Neurology. 2007;68:343-9

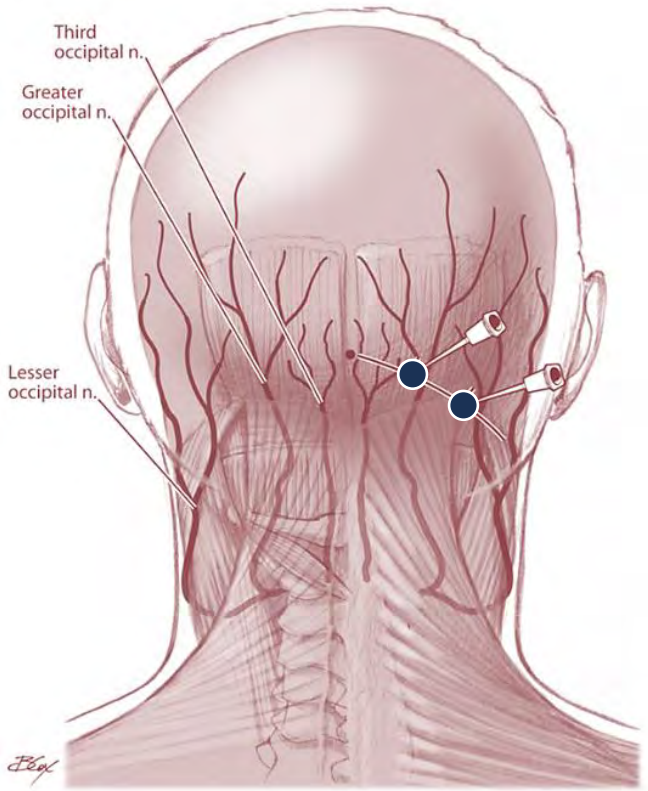
Pearls: Preventive Treatment of Migraine



*FDA approved

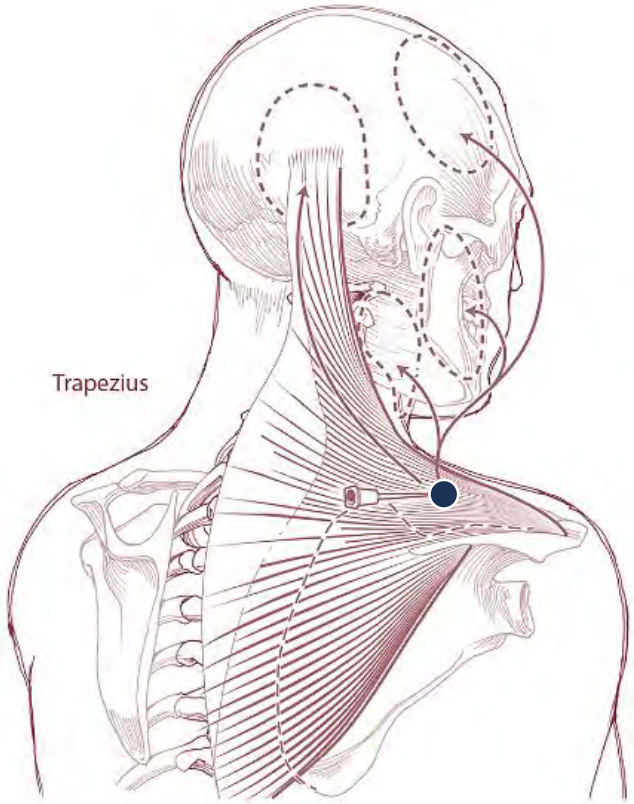
Can J Neurol Sci. 2012;39(2 Suppl 2):S1-59; Can Fam Physician. 2015;61:670-9; Headache. 2019;59:1-18.

Common Procedures for Migraine



Nerve blocks

OnabotulinumtoxinA



Trigger point injections

Headache. 2013;53:437-46.; Headache. 2017;57:766-77; Headache. 2014;54:1441-59.

How Do I Manage Migraine?

Preventive Treatment

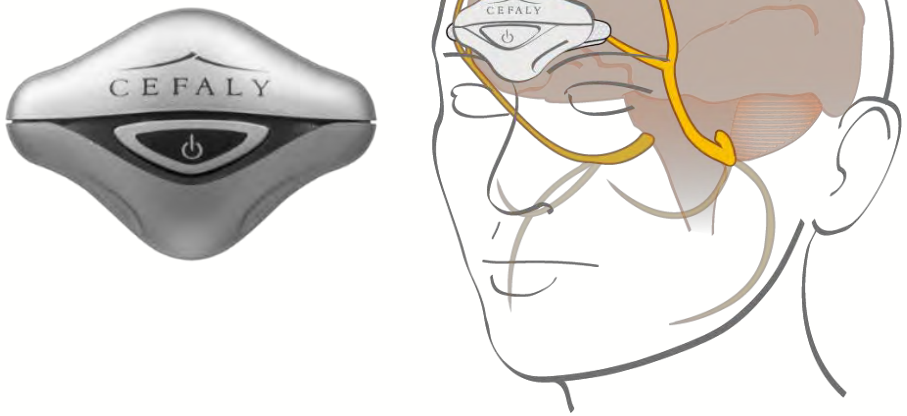
How Do I Manage Migraine?

Non-medication Treatments

Neuromodulation Devices

Acute and Preventive Treatment

Transcutaneous supraorbital nerve stimulator



Single pulse transcutaneous magnetic stimulator

J Headache Pain. 2020;21:142.

Neuromodulation Devices

Acute and Preventive Treatment

Remote electrical neuromodulation*

* Acute treatment only

Non-invasive vagus nerve stimulator

J Headache Pain. 2020;21:142.

Nutraceuticals

Agent	Daily Dose	Notes
Riboflavin (vitamin B2)	400 mg	Urine discoloration
Magnesium	400 mg – 600 mg	Diarrhea; chelated forms better tolerated
Coenzyme Q10	300 mg	Most expensive
Feverfew	50 mg – 300 mg	Low-quality evidence
Melatonin	3 mg	Conflicting evidence

Note: Petasites/Butterbur not currently recommended due to concerns about liver toxicity

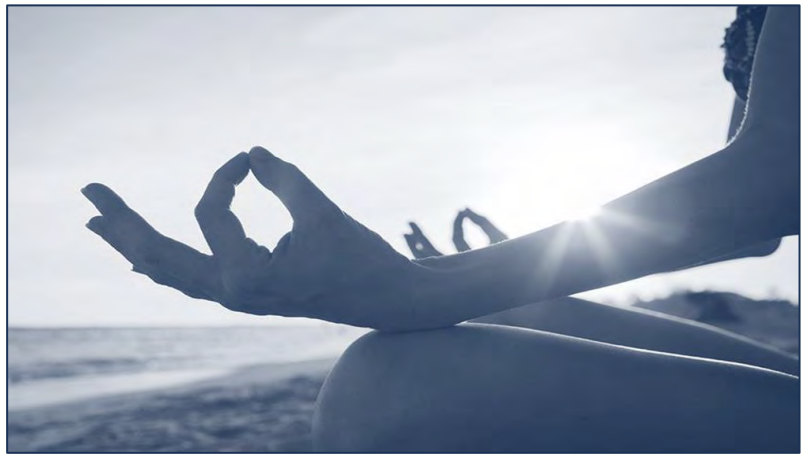
Neurology. 2012;78:1346-53; Medicine (Baltimore). 2019;98(3):e14099.; Headache. 2016 Sep;56(8):1257-66.

Behavioral Therapies for Migraine

Biofeedback

CBT

Relaxation Training



- Supported by data
- Endorsed in US Headache Consortium guidelines
- Have long-lasting benefits
- Effective at all life stages
- Can be stand alone or combined with other therapies

Neurology. 2000;55:754-62.

How Do I Manage Migraine?

Non-medication Treatments

How Do I Manage Migraine?

Manage What Makes Migraine Worse

Risk Factors for Migraine Progression

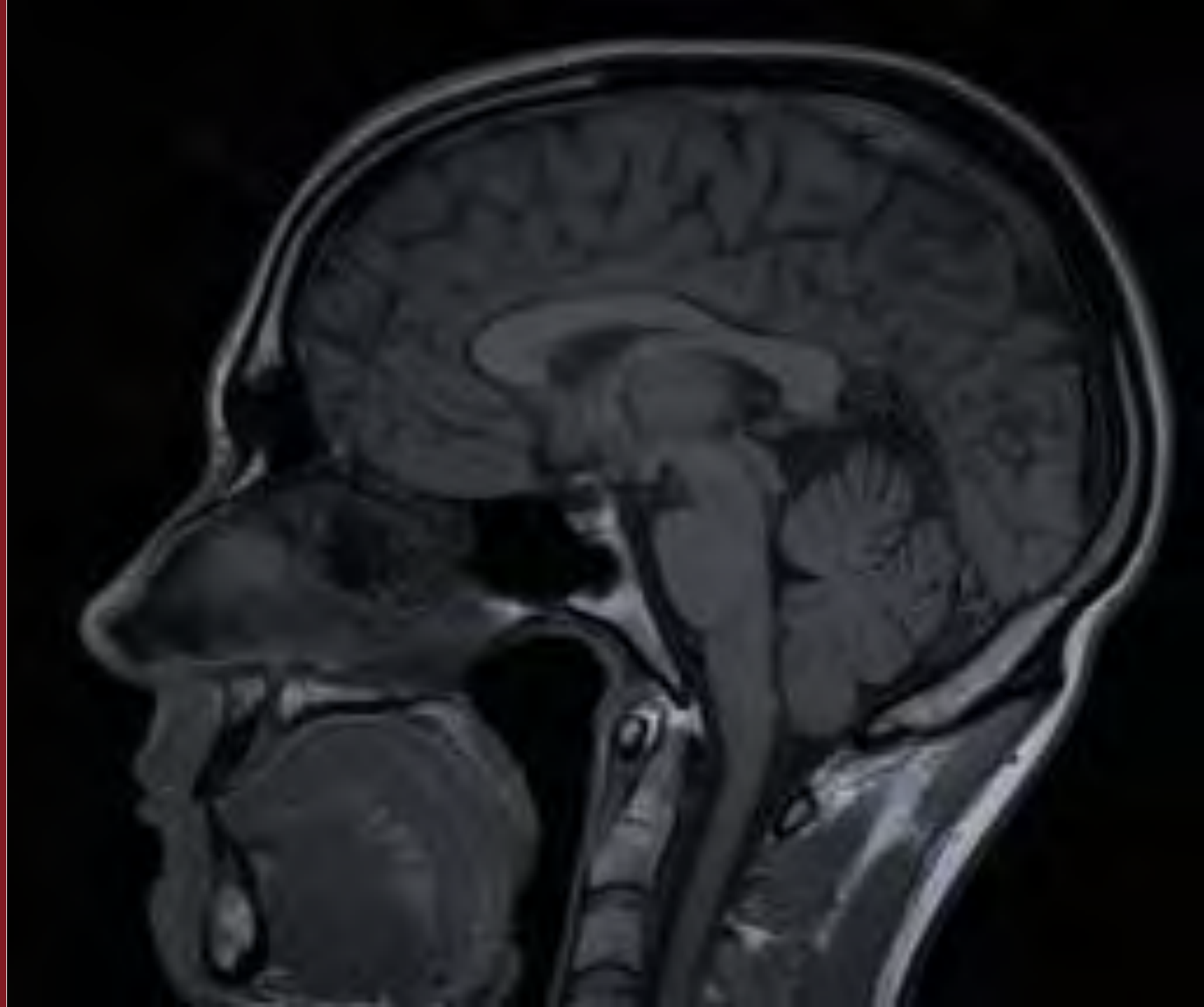
Risk Factor	Recommendation
Frequent headaches	Start migraine prevention when appropriate
Overuse of pain relievers	Start migraine prevention, recommend limiting use of acute pain relievers; avoid opioids and barbiturates
Depression	Screen for and treat depression
Other (non-headache) sources of pain	Identify and treat other pain conditions
Asthma	Screen for and treat asthma
Obesity	Consider topiramate, referral to nutrition, increase exercise

Headache. 2019;59(3):306-38.

Answers to

Frequently Asked Questions

When is imaging warranted?



Imaging in Headache Disorders

Choosing Wisely®

Don’t perform neuroimaging studies in patients with **stable headaches** that meet criteria for **migraine**

Don’t perform **CT imaging** for headache when **MRI is available**, except in **emergency settings** (eg, acute bleed)

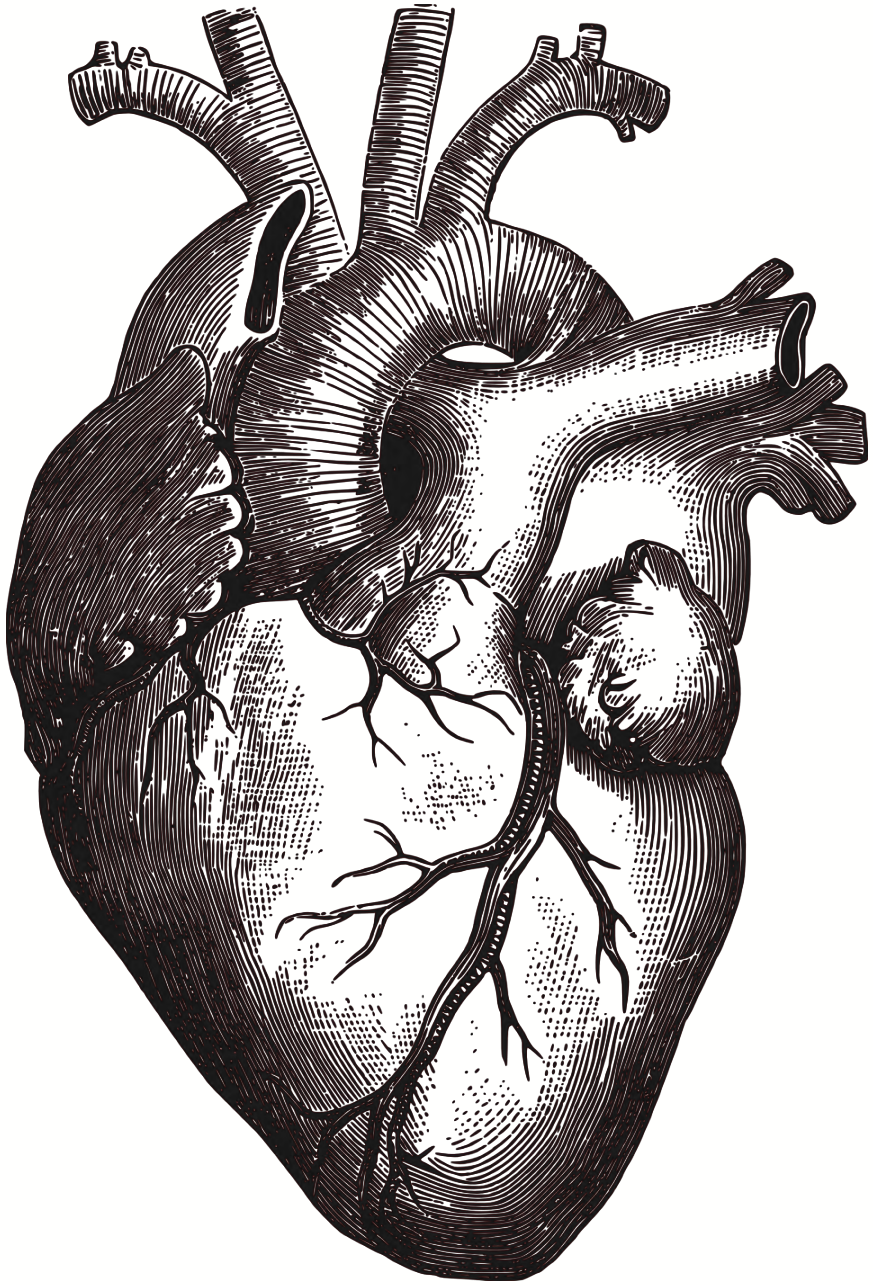
American Headache Society

There is **no necessity** to do neuroimaging in patients with **headaches consistent with migraine** with a **normal neurologic examination** and **no atypical features or red flags**

ACR® American College of Radiology

Appropriateness Criteria® Headache — good resource for image selection in **specific clinical scenarios**

Do I need to worry about cardiovascular disease with triptans?



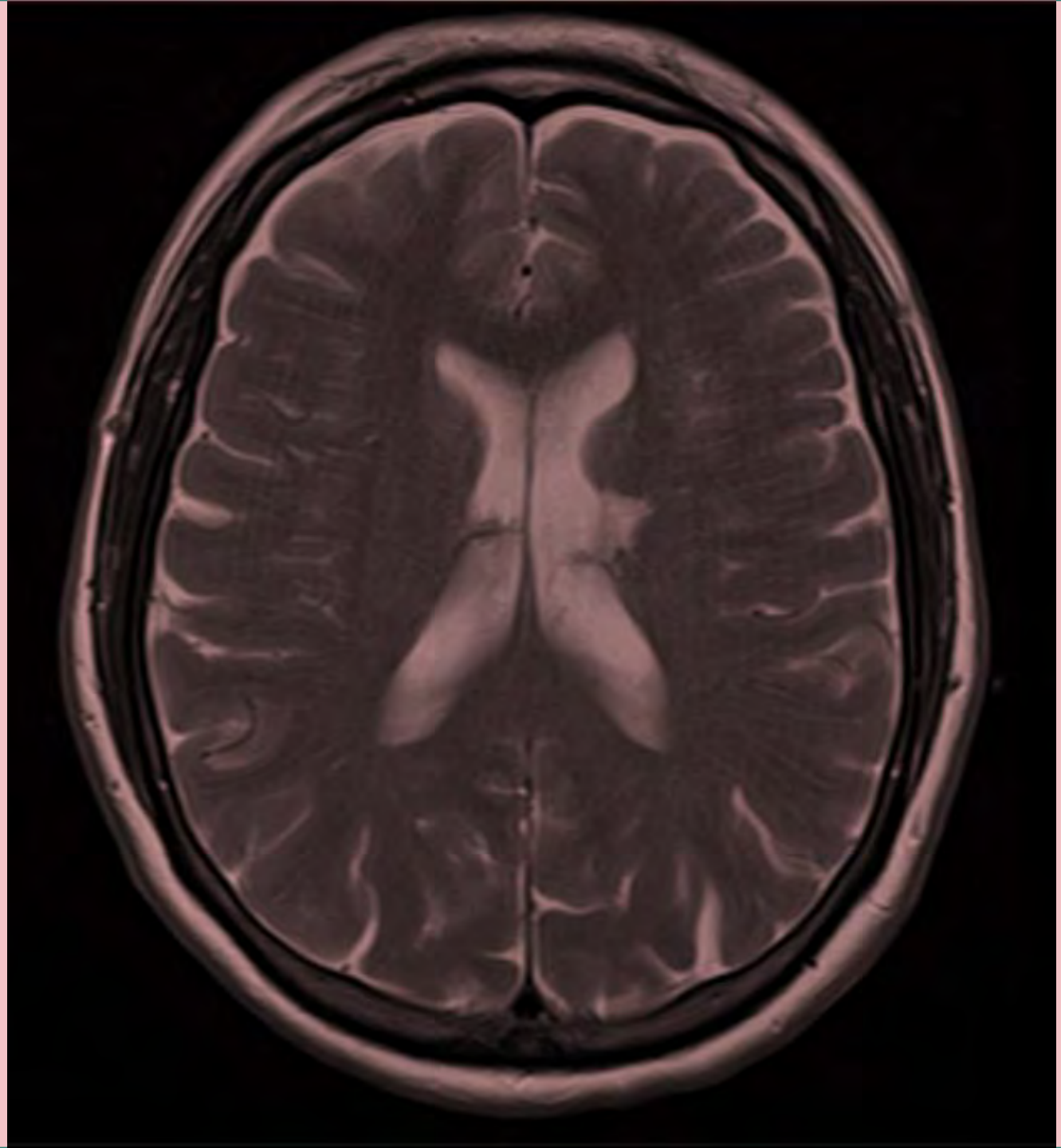
Triptans and Cardiovascular Safety

- **Most of the data on triptans are derived from patients without known coronary artery disease**
- **Chest symptoms occurring during use of triptans generally not:**
  - Serious
  - Explained by ischemia
- **Incidence of serious cardiovascular events with triptans is extremely low in:**
  - Clinical trials
  - Clinical practice
- **The cardiovascular risk-benefit profile of triptans favors their use in the absence of contraindications, such as:**
  - Coronary artery disease
  - History of stroke
  - Peripheral vascular disease
  - Uncontrolled hypertension

Headache. 2004;44(5):414-25.

Migraine:

What do I tell patients about stroke risk?



Migraine and Stroke Risk

- **Ischemic stroke and migraine with aura strongly associated with:**
  - Female sex
  - Young age
  - Use of oral contraceptives
  - Smoking
- **People with migraine are more likely to have asymptomatic structural brain lesions**
- **There is no direct evidence that migraine prevention reduces stroke risk**

J Neurol Neurosurg Psychiatry. 2020 Mar 26. pii: jnnp-2018-318254.

Migraine Myth Busters

Migraine Myth Busters

- **Myth 1: Migraine = severe headache**
- **Myth 2: Migraine pain is due to vasodilation**
- **Myth 3: Migraine headache must always be throbbing**
- **Myth 4: You can't diagnose migraine without the presence of aura**

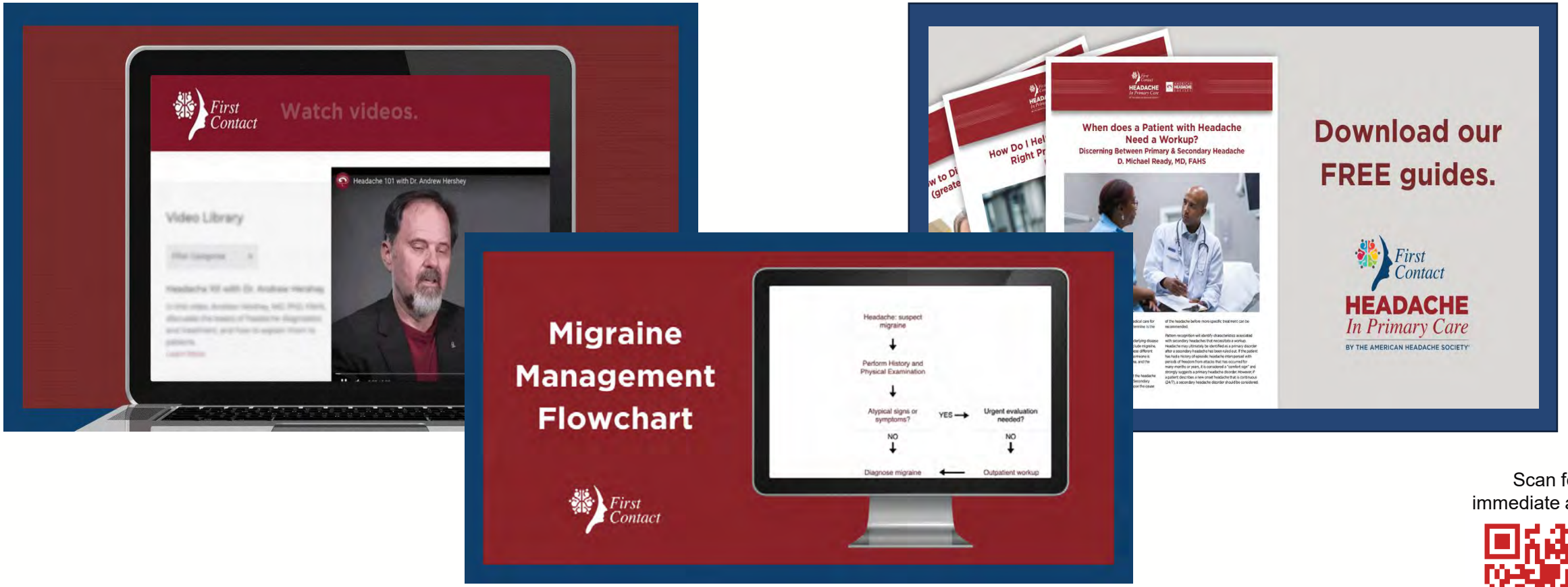
Migraine Myth Busters

- **Myth 5: Sinusitis is a common cause of headache**
- **Myth 6: Neck pain is rarely a symptom of migraine**
- **Myth 7: Triptans should be avoided in patients with aura**
- **Myth 8: Never prescribe triptans with SSRIs/SNRIs**

In Summary

- Make the diagnosis
- Rule out secondary headaches
- Provide acute treatment
- Consider prevention

Online Resource Library



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Evaluation

Please share your feedback

https://www.surveymonkey.com/r/FirstContactNonCME

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